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SPIRITUAL QUALITY OF LIFE AMONG GERIATRIC CANCER PATIENTS: A DESCRIPTIVE CORRELATIONAL STUDY

A project submitted in partial fulfillment of the
requirements for the degree of
Master of Science in Nursing

By

MARY R. LEYENDECKER

MSN, College of Mount St. Joseph

BS Chemistry, University of Cincinnati

AS Chemical Engineering, University of Cincinnati

2015
Cedarville University

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Abstract

A solid understanding of spiritual quality of life (SQOL) is critical for healthcare providers as they strive to achieve optimum care of geriatric cancer patient. However, there is a gap in the current literature regarding SQOL in geriatric cancer patients. Therefore, the purpose of this descriptive correlational study was to describe the spiritual quality of life (SQOL) among geriatric cancer patients as it relates to their demographic characteristics and self described wellness. A convenience sample of 32 participants from a cancer center in Midwest Ohio were recruited for this study. The participants completed the World Health Organization Quality of Life-Spiritual, Religious, Personal Beliefs (WHO QOL-SRPB) survey. The WHO QOL-SRPB survey is a paper-and-pencil 5-Likert scale survey used to measure SQOL in nine facets. Nine facet scores and the overall SQOL score were calculated. The results of this survey indicated that there is a positive statistically significant correlation between spiritual quality of life and the participant's self-described health status and religious beliefs. The highest facet score was found in facet nine (spiritual religious personal beliefs) with an average score of 3.84; whereas and the lowest scoring facet was facet 6 (inner peace) with an average score of 3.64. The overall SQOL score (domain 6) was 15, with a possible range of scores between 4 and 20. Recommendations for future studies include utilizing a larger sample size, a qualitative study to gain insight into geriatric cancer patients' experiences regarding SQOL, and investigating SQOL interventions and outcomes.

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Chapter 1: Introduction and Literature Review

Introduction

The use of spirituality in the healthcare profession is a moving target and is exceptionally fluid in the care of geriatric patients with cancer. Understanding the concept of "spirituality" is imperative for healthcare providers when caring for others and it is critical for all providers to incorporate spirituality into plan of care to achieve optimal health outcomes (Ross, 2006; Pike, 2011). However spirituality in geriatric cancer patients is not fully understood to many due to lack of published literature (Kandasamy, Chaturvedi & Desai, 2011; Lapid, 2007; Piderman, et al., 2014). Little published research exists on the impact of spirituality on an individual's health. The limited existing research indicates that spatiality plays a key role in improving geriatric cancer patient outcomes (Winkelman et al, 2011), this is why further research is needed to validate these findings. According to Schub and Richards (2014), spirituality is the vehicle needed to allow healthcare providers to identify interventions for improving patient care. Additionally, according to Kandasamy et al.(2011), mental and quality of life, and physical health and well-being can be even be directly correlated to spirituality. To highlight the importance of spirituality, Piderman et al. (2014) states, "Spirituality is one of the most salient domains of quality of life," (Piderman et al, 2014. p.216). However there are many interpretations of what "spiritual quality-of-life" is, and actually defining it can be a complex and challenging task (O'Connell & Skevington, 2013). People are living longer and the geriatric population is growing. Turkoz and colleagues (2013) state, "Increased life expectancy and increasing cancer incidence with aging will result in expansion of the elderly cancer population" (p.28). This makes the subject of geriatric cancer patients and spiritual quality of life (SQOL) essential for healthcare providers to study. Understanding SQOL is crucial in delivery of

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optimal healthcare outcomes for patients in the clinical environment, especially as it relates to the geriatric patients dealing with cancer (Piderman et al. 2014). The purpose of this research is to describe SQOL in geriatric cancer patients.

Literature Review

In cancer research, quality of life is a topic that has been frequently studied. In general, quality of life addresses multiple aspects of wellness including psychosocial, physical and emotional aspects. An individual's health and wellness can impact their quality of life. Health-related quality of life (HRQOL) refers not to additional factors of QOL, but instead to the degree to which ones current health status either impedes or facilitates QOL (Zullig, 2010). In the ltierature, the impact of cancer on patient's quality of life has been well recognized (Buck, Overcash, & McMillan, 2009; Kandasamy et al., 2011; Krizinga, Scherer-Rath, Scilderman, Spranger, & Laarhoven, 2013; Lapid et al., 2007; Moadel, Morgan & Dutcher, 2007; Piderman et al., 2014; Winkelman et al., 2011). Lapid et at., (2007) states that cancer has a significant negative effect on geriatric patients' QOL. Additionally, SQOL refers to one's own self-described spirituality (Skevington, Bradshaw, & Saxena, 1999). According to Winkelman et al., (2011) spiritual well-being is a factor of quality of life as people rely on their religion and spirituality for coping mechanisms and dealing with health related events. Both HRQOL and SQOL interact to play a role in overall QOL, essentially a higher SQOL leads to better HRQOL and treatment response (Preau, Bouhnik & Sorlano, 2013). Buck et al. (2009) found that SQOL decreases when symptoms, severity and distress increase. The findings from Buck et al. (2009) cross-sectional study showed an significant positive correlation between QOL and spiritual experiences, and where 67% of the variability in QOL is explained by the patient's symptoms

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and spiritual experiences (Buck et al., 2009). Buck et al., (2009) stated that physical symptoms and spiritual experience are both important to overall QOL.

Importance of SQOL

The importance of SQOL on cancer patients have been well documented recognized (Bucket al., 2009; Kandasamyet al., 2011; Krizinga et. al., 2013; Lapid et al., 2007; Moadel, et al., 2007; Piderman et al., 2014; Winkelman et al., 2011). However, there is a lack of understanding on SQOL, particularly in geriatric cancer patients. Piderman et al. (2014) stated that SQOL is an "unrecognized and underutilized" concept of patients with cancer (p.216) and for this reason more research is needed on SQOL of geriatric cancer patients. Other researchers concurred with the statement by Piderman and the colleagues (2014), (Kandasamy et al., 2010; Lapid et al., 2007). Lapid and colleagues (2007) stated that there is little known about SQOL and even less known about the effects of QOL interventions on geriatric cancer patients. One potential reason could be because geriatric cancer patients are underrepresented in oncology studies (Lapid at al., 2007).

Impacts of SQOL

Limited studies have focused on the impact of SQOL on the physical and psychological aspects in geriatric cancer patients. Kandasamy and colleagues (2011) conducted a cross-sectional study of 50 patients with advanced cancer receiving palliative care on the influence of spiritual well-being on distress, depression, and other aspects of quality of life. The results showed that spiritual well-being was negatively correlated with distress, depression, anxiety; and positively correlated with all other aspects of QOL. The authors contended that spiritual well-being is closely related to the physical and psychological dimensions in patients with advanced cancer. Similarly, in Mohammadi, Tajvidi, and Ghazizadeh's (2014) descriptive correlational

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study, the results revealed a statistically significant positive correlation between the score of spiritual well-being and the total score of quality of life ($r= 0.347$ $p= 0.001$). The authors concluded that, as with physical, mental and social aspects of a patient's health, spiritual aspects of a patient's well-being must be taken into consideration (Mohammadi, et al., 2014). These findings provide a foundation for the development of holistic plan of care.

Several systematic review studies have been conducted on SQOL since 2000. Pike (2011) reviewed 45 articles that were published between 2006 and 2010 to understand the concept of spirituality and its application. The results revealed four themes: concept clarification, religion and spirituality, nurse education, and spiritual care-giving. Pike (2011) indicated that concept clarification of SQOL is still an ongoing controversy. There is a consensus that spirituality has multiple dimensions; however, there is no consensus on how the concept should be defined (Pike, 2011). Providers are not equipped to apply spirituality in practice because of a lack of information on the subject (Pike 2011). This keeps them from understanding how to apply spirituality in practice without offending or confusing the patient. With limited research in the literature, there is no consensus about the definition of QOL, spirituality, or the geriatric population of cancer patients as it relates to SQOL. Additionally, there is limited direction on how to use the existing information. This lack of direction on the application of SQOL was also found in Ross's (2006) meta-analysis study. Ross (2006) found that nurses did not provide spiritual interventions to their patients due to inadequate preparation to identify spiritual distress and to deliver spiritual care. Furthermore, needs that are unfulfilled can result in spiritual distress.

Studies have verified that there are unmet needs on spirituality among geriatric cancer patients, which may result in spiritual distress (Kandasamy et al.,, 2011; Moadel, et al., 2007;

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Moadel et al., 1999). Moadel and colleagues (1999) studied the self-reported spiritual and existential needs among an ethnically-diverse cancer patient population in an oncology clinic. The authors discovered unmet spiritual needs for advanced cancer patients, including wanting help with “identifying the meaning of life,” (40%), “finding hope,” (42%), “overcoming fears,” (51%). The study implies that overcoming barriers of such unmet needs allows the provider an opportunity to enhance patient-provider relationships, improve patient spiritual well-being and give the patient hope (Moadel et al., 1999). Buck et al., (2009) also found that geriatric cancer patients had unmet needs in the forms of symptom distress, functional status and depression. In addition, Winkelman and colleagues (2011) found 86% of the patients felt it is important for healthcare providers to address spiritual concerns. These results are consistent with evidence in other studies (Kandasamy et al., 2011; Moadel et al., 2007; Schub & Richards, 2014). These authors concluded that healthcare providers need to conduct assessment on spiritual needs and increase their understanding about the unmet spiritual needs of the geriatric patients with cancer.

Unmet spiritual needs can lead to spiritual distress (Kandasamy et al., 2011; Moadel, et al., 2007; Moadel et al., 1999). Patients may display spiritual distress through outward signs such as depression, decreased interest in pleasurable activities, unexplained weight changes, sleep disturbances, agitation, fatigue, feelings of worthlessness, attention deficits and suicidal ideation. However, there are times when there are no outward signs. Chibnall, Videen, Duckro, & Miller (2002) encouraged the implementation of spiritual intervention to increase well-being, health and quality of life. Few studies have been conducted on the design of spiritual interventions and their impact on SQOL.

Interventions

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Lapid et al. (2007) studied the effectiveness of structured multidisciplinary interventions to improve quality of life in geriatric cancer patients using a two-group randomized control trial. The experimental group received interventions that included eight 90-minute therapy sessions to address five QOL domains (cognitive, physical, emotional, spiritual and social functioning). The participants' QOL was measured at baseline and weeks 4, 8, and 27. As compared to the control group, the participants in the intervention group who completed the interventions had a significantly higher QOL score at week 4 and 8. The authors emphasized the benefits of utilizing structured multidisciplinary interventions in the improvement of QOL (Lapid et al. 2007). Additionally, in Garlick, Wall, Corwin & Koopman (2011) quasi-experimental study, eight sessions of psycho-spiritual integrative therapy (PSIT) was provided to allow breast cancer patients to enhance coping skills, learn meditation, explore both life qualities and personal qualities, understand personal motivations and what they consider to be sacred, and clearly define next steps for themselves. The findings showed, statistically significant improvements when interventions were utilized across all spiritual, functional and mental tests with a maximum (p=<0.05) across all tests conducted. More studies need to be conducted to identify the key elements to be included in interventions for improving QOL in geriatric cancer patients.

Measurement Tools for SQOL

Several measurement tools have been developed to measure spiritual well-being and quality of life. Ku, Kuo, & Yao (2010) developed a spiritual distress scale (SDS) to assess spiritual needs within the domains of "relationship with self, relationship with others, relationship with God, and attitude towards death" (p. 133). Validity of using the scale for hospitalized cancer patients in Taiwan was established with content validity across the four domains ranged from 0.79-0.89 and internal consistency ranged from 0.90-0.95. The authors

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emphasized the importance of a thorough assessment of the individual's views on facing death, and relationship with God, self, others, must be evaluated to develop a holistic plan of care. The holistic plan of care can then be utilized by the healthcare provider to help patients with healing and spiritual distress and delivering on unmet needs. The conclusion of this study was that the spiritual distress scale defined four areas for cancer patients to understand their feelings about their life: relationship with self, relationship with others, relationship with God, and attitude towards death.

World Health Organization-Spiritual Quality of Life-Spiritual, Religious, Personal Beliefs (WHO-QOL SRPB) has been developed to assess SQOL. Skevington et al., (1999) conducted a preliminary testing to assess the WHO-QOL SRPB. The study showed that data from the WHO-QOL SRPB were reliable across a test retest sample with 9.5 weeks between the two trials. The WHO-QOL SRPB tool was validated against the Spiritual Well-Being Questionnaire (SWBT) which was validated by Gomez & Fisher (2003) where it was found to have strong to moderate correlations of ($p<0.0001$). Cronbach's alpha was (a = 0.85). For the SRPB domain, alpha was highest at 0.83; other QOL domains were acceptable (physical: 0.76, environmental 0.70, psychological: 0.70) but social was unacceptable (0.50). The goal of the research was to streamline the 132 questionnaire to 34 questions for ease of use and broader application across various populations internationally. It was concluded that the instrument was less burdensome and more acceptable to use for both the researcher and the subject (Skevington, et al., 2013).

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Conclusion

In general, there are three themes that arise in the literature on SQOL in geriatric patients; 1) there is a lack of literature related to SQOL and the geriatric cancer population to help providers establish guidelines for improved outcomes in the geriatric cancer patient, 2) adequate interventions have not been developed to address unmet spiritual needs for the geriatric cancer population, and 3) lack of interventions causes spiritual distress in the geriatric cancer population which impacts the geriatric patient's mental and physical health. In sum, there is a lack of understanding on SQOL, particularly in the geriatric cancer population. Therefore, the purpose of this study was to describe spiritual quality of life among geriatric cancer patients. Specific research questions were:

1) What is the spiritual quality of life in geriatric cancer patients?
2) What are the relationships between demographic variables, health status, religious beliefs and overall spiritual quality of life?
3) What are the relationships between demographic variables, health status, religious beliefs and each facet of spiritual quality of life?

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Chapter 2: Theoretical Model

WHO QOL-SRPB

The theoretical model is the WHOQOL-SRPB (Skevington et al., 1999). This model was developed inductively from studies conducted in 18 centers around the world using more than 5000 sick and well participants. The model was developed to assess individual's perceptions of QOL in the following domains: physical, psychological, level of independent, social relationships, environmental and spirituality. The spirituality domain consists of the following nine facets: spiritual connection, meaning and purpose in life, experiences of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism, faith and spirituality religion and personal beliefs. The nine facets made up Domain 6 which is SQOL. The WHOQOL-SRPB instrument was developed based on the model. In 2013, Skevington et al., (2013) conducted a preliminary testing of the short form of WHOQOL-SRPB using 230 participants Chronbach's alpha was highest at 0.83 for SRPB 34 question tool (Skevington, et al., 2013).

Definitions

Spiritual care. Spiritual care has been defined in various ways. Clarke (2009) indicates that spiritual care is undifferentiated from psychosocial care and attempted to draw a line between spiritual care and psychosocial care. Fawcett and Noble (2004) discusses the Christian nurse practicing in a multi-faith society focusing on holistic care. "Stoll's guidelines for spiritual assessment" are used in Fawcett & Noble (2004), and include placing responsibility on the healthcare provider to assess the patient's beliefs and then determine whether or not they comply with the provider's idea of spiritual self-care. This method assumes that everyone must have a God. Agrimson and Taft (2009) research the concept of "Spiritual Crisis" where they measure

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spirituality through attempting to define the patient's belief system. This leaves the onus on the provider to own this responsibility. This short summary of the articles points out just a few inconsistencies identified in the literature. In this study spiritual care is defined as providing emotional support that validates a person's beliefs and spiritual practices.

The main consistency in the literature is its statement that spiritual care is not synonymous with religious activity (March, 2015; Sinclair & Chochinov, 2013). Spiritual care does require that the healthcare provider be a God-fearing disciple of Jesus Christ. The primary difference between religious activity and spiritual care consists of such activities as going to church on Sunday, reading the Bible, and praying, just to name a few. These practices, while important, mean nothing if not applied to everyday life. This is where spiritual care comes in. The lessons learned in church and from the Bible, along with the guidance we receive from the Holy Spirit, allow us to care spiritually for our patients. A God-fearing disciple of Jesus knows this and applies it to his or her life and practice. In this study, spiritual care is defined as the physical, mental and soulful concern that a healthcare provider exerts over a patient.

Quality of life. The World Health Organization definition for Quality of Life was used for this study. In this study, quality of life is defined as "individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" (Skevington et al., 2013).

Spiritual quality of life (SQOL). SQOL as a concept is the general notion of merging spirituality with physical and mental well-being. It is defined in literature as two separate concepts, "spiritual" and "quality of life." *A Student's Dictionary* (2009) defines the word spiritual as an adjective meaning, "airy, motivated by the soul, holy, religious; however, organized religion mayor may not be a part of an individual's spirituality (Weaver, A. J.,

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Flannelly, L. T., Flannelly, K. J., Koenig, H. G., & Larson, 1998). Also, spirituality includes one's beliefs, meaning of life relationship with God and others, and coping mechanisms during stressful events (Garcia & Koenig, 2013). Spirituality can help to resolve fear and instill hope. For this study SQOL is defined as an "individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" in the aspects of spirituality, religiousness and personal beliefs SRPB) (Skevington et al., 2013).

Operational definition of SQOL. SQOL for the geriatric cancer patients was measured using the WHOQOL-SRPB (" (Skevington et al., 2013). A description of the measurement instrument is provided in chapter three of this paper.

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Chapter 3: Methodology

Design

This descriptive-correlational study sought to describe the spiritual quality of life (SQOL) among geriatric cancer patients. Relationships among SQOL, the geriatric cancer patients' spirituality, religiosity, and personal beliefs were also investigated.

Setting

The setting for this study was the Greater Dayton Cancer Center, Midwestern Ohio. This facility is operated by the Dayton Physicians Network, and is a community-based oncology practice providing integrated cancer care services. The 18 physicians and from Dayton Physicians Network and 4 advanced practice nurses (APN's) provide cancer patients of all ages with the ability to have a medical home for their oncology, hematology, radiation, and other medical needs. Additionally, the team helps with advocacy and resources, financial needs, advanced directives and support groups.

Participants/Inclusion Criteria

A convenience sample of geriatric patient from Dayton Cancer Center was recruited for this study. The inclusion criteria includes: 1) outpatient patients with ages equal or greater than 65 years, 2) has been diagnosed with cancer that has been staged, and 3) able to communicate with English in writing and speaking 4) patients must have the cognitive ability to complete the study in written or verbal form. Exclusion for participation are: 1) patients less than 65 years old, 2) patients who are not diagnosed with cancer, 3) patients with dementia, brain tumors or other co-morbidities that impair their cognitive abilities.

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Ethical Considerations

IRB approvals were secured from Cedarville University and Dayton Physician Network (see *Appendix B and C* for IRB approval forms).

Instrument

The World Health Organization Quality-Of-Life Spiritual Religious Personal Beliefs (WHOQOL-SRPB) were used to collect data on spiritual quality of life in geriatric patients with cancer (see *Appendix A*: *WHOQOL-SRPB* survey). This paper-and-pencil 5-Likert scale survey consists of 34 items. There are 2 sections on the survey: the WHOQOL-SRPB and demographic information. Permission from the World Health Organization has been secured to use the survey for this study (see *Appendix D* for permission Skevington et al., (2013).

The WHOQOL-SRPB instrument consists of 34 questions to assess quality of life on aspects related to spirituality, religiousness and personal beliefs (SRPB). The original 105 question instrument was validated by using the WHOQOL questionnaire in 18 centres around the world. To streamline the tool to 34 questions, Chronbach's alpha was highest at 0.83 for SRPB 34 question tool (Skevington et al., 2013). There are 8 facets in the SRPB which include: S1) Spiritual Connection, S2) Meaning & Purpose in Life, S3) Experiences of Awe & Wonder, S4) Wholeness & Integration, S5) Spiritual Strength, S6) Inner Peace, S7) Hope & Optimism, S8) Faith. Each facet has 4 questions. The questions will be answered using 4 different 5-point Likert scales. The 5-point Likert scale response categories include: 1) 13 questions which use "Not at all," "A little," "A moderate amount," "very much," and "An extreme amount," 2) five questions which use "Not at all," "slightly," "Moderately," "Very," and "Extremely," 3) "Not at all," "A little," "Moderately," "Mostly," "and "Completely," 4) "Very dissatisfied,"

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"Dissatisfied," "Neither satisfied nor dissatisfied," "Satisfied," "Very satisfied." There are no negatively phrased questions.

Facet scores (one for each facet) and the overall quality of life score (domain 6) were calculated in this study. The calculations were conducted based on the instructions from the WHOQOL-SRPB manual. The facet scores were calculated by averaging the scores of the facet items for the particular facet. Facets are calculated by adding the sum of all questions then dividing that number by 4. Higher facet scores denote higher quality of life for the facet. The domain is calculated using the mean of all 9 facets multiplied by 4 with the result ranging between 4 and 20.

The participants were asked to complete a demographic information sheet (see *Appendix A*). The demographic data collected include: date of birth, gender, educational level, marital status, self-reported health status, diagnosis, problems they have now (co-morbidities).

Data Collection

A list of potential participants who satisfied the inclusion criteria was provided by the facility. The researcher approached the potential participants to request for participation. The researcher explained the purpose and protocol for the study. The potential participants were informed that participation is voluntary and they are free to withdraw from the study at any time. In addition, their decision to participate or not would not affect the treatment that they receive. After receiving the informed consent, the participants completed the paper-and-pencil WHOQOL-SRPB survey (Skevington, et al., 2013). Participants were asked to complete demographic information and the WHOQOL-SRPB questionnaire. Upon completion of the instrument, the participants received a $5 gift card from Kroger as reimbursement for their time.

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Data Analysis

Descriptive statistics (such as frequency, mean, range and standard deviation), Pearson's product moment, Kendal's Tau-B were used to analyze the data.

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Chapter 4: Results

The purpose of this study was to describe spiritual quality of life among geriatric cancer patients. The data were collected at the Dayton Cancer Center between the dates of March 10, 2015 and March 18, 2015. There were 32 participants in the study. Of the participants who completed a questionnaire, 28 participants completed it using a pencil and paper on their own and 4 requested help in filling out the questionnaire from the researcher.

The time to complete the survey was about 15-20 minutes; however the some participants took longer as they rested in between pages. A total of 44 potential participants met inclusion criteria and were approached to request participation. Eleven (25%) of those who met inclusion criteria did not agree to participate. Two appeared to be averse to the topic and the other 9 stated that they were “just too tired.” Additionally, one participant filled out the demographic sheet and handed it back as she was too fatigued to go any further.

Demographic Data

Demographic results are presented in Table 1 and as follows. All participants had cancer. Nineteen participants (59.4%) were female and the mean age of the participants was 72.5 years with a range of 65 to 84 years old. Twenty-eight participants (87.5%) at least completed secondary school as the highest level of education completed. Twenty-three participants (71%) were married with four (12.5%) divorced and four (12.5%) widowed. While none of the participants considered themselves to be in very poor health, seven participants (21.9%) considered themselves to be in poor health, fourteen (43.8%) neither poor nor good health, ten (31.1%) rated themselves as being in good and 1(3.1%) very good health. Twenty-eight participants (87.5%) considered themselves to be ill. Eight participants had no other diagnoses whereas twenty-four participants (75%) had from 1to 9 additional comorbidities.

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Table 1

Demographic Data

Demographic Factors	n	%
Gender		
Male	13	40.6
Female	19	59.4
Educational level		
Primary school	3	9.4
Secondary school	12	37.5
University	9	28.1
Post graduate	7	21.9
Marital Status		
Single	0	0
Married	23	71.8
Living as married	1	3
Separated	0	0
Divorced	4	12.5
Widowed	4	12.5
How is your health?		
Very poor	0	0
Poor	7	21.9
Neither poor nor good	14	43.8
Good	10	31.3
Very good	1	3.1
Are you currently ill?		
Yes	28	87.5
No	4	12.5
What health problems do you have at the moment?		
Heart trouble	9	28.1
High Blood Pressure	10	31.1
Arthritis or Rheumatism	12	37.5
Cancer	32	100
Emphasema or chronic bronchitis	5	15.6
Diabetes	6	18.8
A cataract	5	15.6
Stroke	1	3.1
Broken or fractured bone	2	6.3
Chronic nervous or emotional problems	2	6.3
Chronic foot trouble	2	6.3
Rectal growth or rectal bleeding	2	6.3
Parkinson’s disease	0	0
Other	6	18.8

*N=32

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Religious Beliefs

Most participants considered themselves to be at least slightly: 1) a religious person (n=32, 100%), 2) to be part of a religious community (n=29, 90.6%), 3) to have spiritual beliefs (n=32, 100%), and 4) to have strong personal beliefs (n= 32, 100%). The self-described religious communities of the participants included 21(65.6%) Christian, 4 (12.5%) other, and 7 (21.9%) did not answer. The data are presented in Table 2.

Table 2

Religious Beliefs

	Not at All	Slightly	Moderately	Very	Extremely
To what extent do you consider yourself to be a religious person?	n=0 0%	n=3 9.38%	n=16 50%	n=9 28.13%	n=4 12.5%
To what extend do you have spiritual beliefs?	n=0 0%	n=2 6.25%	n=13 40.63%	n=9 p=28.13	n=8 25%
To what extend do you have strong personal beliefs?	n=0 0%	n=1 3.13%	n=8 25%	n=15 46.88%	n=8 25%

*N=32

Spiritual Quality of Life

The data from the WHOQOL-SRPB regarding the facet and domain scores are presented in Table 3. Item scores ranged from 1 to 5 with a mean of 3.74 (SD=0.963). The highest scoring item was SP3.4 (*To what extent are you grateful for the things in nature that you can enjoy?*) with a mean of 4.22 (SD=0.91). The lowest scoring item was SP3.3 (*To what extent do you have feelings of inspiration/excitement in your life*) with a mean of 3.41(SD=1.07). For the

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question *"How satisfied are you that you have balance between mind, body and soul*?", no participants indicated "very dissatisfied" and/or "dissatisfied". Most participants indicated "satisfied" (n=15, 46.88%) for this question.

Facet scores ranged from 1.5 to 5 with a mean of 3.75 (SD=0.06). The lowest facet score was identified as peace (mean=3.64, SD=0.78) and the highest was spiritual, religious, personal beliefs (mean=3.84, SD=0.74). Domain 6 (overall spiritual quality of life) scores ranged from 7.67 to 19.87. The mean of the Domain 6 scores was 15 (possible range of the score: 4-20) with a standard deviation of 2.92 and a range of 7.67 to 19.78. Skevington et al., (2013) indicate that the higher the score, the better the self-described spiritual quality of life.

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Table 3

WHOQOL-SRPB facet and Domain Score

Spiritual Beliefs	mean	SD	Min	Max
Facet 1 Spiritual Connection	3.72	0.90	1.50	5.00
Facet 2 Meaning and purpose in life	3.81	0.72	1.75	5.00
Facet 3 Experience of Awe and wonder	3.74	0.90	1.5	5.00
Facet 4 Spiritual strength	3.77	0.83	2.25	5.00
Facet 5 Inner peace	3.77	0.86	1.5	5.00
Facet 6 Inner peace	3.64	0.78	2.00	5.00
Facet 7 Hope and optimism	3.69	0.86	1.50	5.00
Facet 8 Faith	3.76	0.88	1.50	5.00
Facet 9 Spiritual/religion/personal beliefs	3.84	0.74	2.00	5.00
Domain 6 Spiritual Quality of Life	15	2.92	7.67	19.78

N=32

Correlations Between Spiritual Quality of Life and Demographic Data

Table 4 summarizes the correlations among the domain 6 scores, facet scores and the demographic data. The relationships were investigated using Kendall's Tau-B and Pearson's R. Kendall's Tau-B was utilized to identify the relationships between Domain 6 and education level (r=0.971, p=0.313), marital status (r=0.180, p=0.005) and gender (r=0.219, p=0.144). There were no statistically significant correlations between SQOL domain 6 scores and education level (p=0.971), age (p=0.69) or gender (p=0.144). With regards to the SQOL domain 6 scores and marital status, the divorced participants (n=4) had the highest scores (mean=17.42, SD=3.8) and

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the married (n=23) had the lowest scores (mean= 14.56, SD=2.94). Pearson's correlation was used to detect the relationships between domain 6 score and age; and domain 6 score and participant self-described health status. The results showed that there was no significant relationship between domain 6 score and age (r=0.69, p=0.607. In addition, there was a statistically significant positive relationship between domain 6 score and self-described health status (r=0.37, p=0.04). This means that the better self-described health status, the higher the domain 6 scores. Additionally, Pearson's correlation also showed a significant positive relationship between age and number of diagnoses (r=0.37, p=0.04). The older the participants the higher the number of diagnoses.

The results of Pearson correlation also showed significant positive correlation between domain 6 scores and self-described religiosity (r=0.59, p=0.0), being part of a religious community (r= 0.46, p=0.01), having spiritual beliefs (r= 0.6, p=0.0), and having strong personal beliefs (0.44 with p=0.01).

The WHOQOL-SRPB survey template included an open-ended question for the participant to write comments. Some of the comments included: 1) "I believe this work is wonderful in a lot of ways," 2) "My biggest complaint to doctors is that warmth is needed for all of this to register," 3) "The doctor can recite the most amazing facts, but it makes me feel alone and gives me no hope," 4) "You make vignettes in life, your own little vignettes that make you feel better when this happens," 5) "Tell me to my eyeballs, not to my chest and not to my chart," 6) "It's hard to evaluate yourself," 7) "I am a born again believer, this journey has brought me so much closer to the Lord," 8) "I believe human interaction is the key to helping people," 9) "It's funny, you get cancer and your eyes open." The common themes from these qualitative data are that the participants and healthcare providers were appreciative of the focus of SQOL of this

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study. In addition, the participants voiced the desire for healthcare providers to include spirituality into their plan of care. They did not feel that the healthcare providers were fulfilling this desire. Furthermore, the participants stated that the journey of being sick did bring them closer to the Lord.

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Table 4

What are the relationships between demographic variables, health status, religious beliefs and <u>each facet</u> of spiritual quality of life?

Facet	Religious Person	Religious Community	Spiritual Beliefs	Strong Personal Beliefs
Facet 1 Spiritual Connection	R=0.61 p=0.00*	R=0.46 p=0.01*	R=0.67 p=0.00*	R=0.36 p=0.05
Facet 2 Meaning and purpose in life	R=0.58 p=0.00*	R=0.44 p=0.01*	R=0.59 p=0.00*	R=0.47 p=0.01*
Facet 3 Experience of Awe and wonder	R=0.30 p=0.09	R=0.35 p=0.05	R=0.37 p=0.04*	R=0.42 p=0.02*
Facet 4 Spiritual strength	R=0.48 p=0.00*	R=0.46 P=0.01*	R=0.51 p=0.00*	R=0.32 p=0.07
Facet 5 Inner peace	R=0.66 p=0.00*	R=0.43 p=0.01*	R=0.68 p=0.00*	R=0.40 p=0.02*
Facet 6 Inner peace	R=0.41 p=0.02*	R=0.45 p=0.01*	R=0.34 p=0.06	R=0.26 p=0.15
Facet 7 Hope and optimism	R=0.38 p=0.03*	R=0.25 p=0.17	R=0.33 p=0.06	R=0.39 p=0.03*
Facet 8 Faith	R=0.6 p=0.00*	R=0.46 p=0.01*	R=0.66 p=0.00*	R=0.41 p=0.02*
Facet 9 Spiritual/religion/personal beliefs	R=0.65 p=0.00*	R=0.34 p=0.06	R=0.64 p=0.00*	R=0.47 p=0.01*
Domain 6 Spiritual Quality of Life	R=0.59 p=0.00*	R=0.46 p=0.01*	R=0.60 p=0.00*	R=0.44 p=0.01*

***N=32**

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Limitations

Generalization of the findings is limited due to the non-probability sampling method, and small sample size. This study used a convenience sample from a cancer center in mid-west Ohio. The sample may not well represent the target population and the bias may be greater. The geriatric patients who choose to participate in this study may feel more strongly about the subject of ”spiritual quality of life”, which may not fully reflect the perception of the target population. Therefore, generalizability is limited. More studies need to be conducted using a larger sample.

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CHAPTER 5: DISCUSSION AND CONCLUSION

Discussion

The purpose of this research was to describe the spiritual quality of life in geriatric cancer patients. In general, participants perceived that they had better health if they had spiritual connection, experiences of awe and wonder, and spiritual, religious and personal beliefs. The results showed that SQOL had significant positive relationships with the participant's self-described spiritual beliefs and health status. Participants expressed the desire for healthcare providers to include spirituality into their plan of care to meet their spiritual needs.

The findings are consistent with the literature in that geriatric cancer patients consider spiritual concerns to be an important part of cancer care (Winkelman et al., 2011). In this survey-based study, 69 palliative care patients who were receiving radiation therapy were assessed for sixteen spiritual concerns. Eight-six percent of the participants endorsed one or more spiritual concerns. The most common form of spiritual seeking, meaning of life, was endorsed by 54% of participants (Winkelman et al., 2011). Results indicated that patients desired spirituality to be incorporated into their cancer care. Additionally, the findings are consistent with the literature in that geriatric cancer patients have spiritual needs as they are going through the treatment for cancer in the older years of life (Lapid et al.,2007). Lapid et al. (2007) studied 103 patients in a randomized stratified, two group controlled clinical trial with cancer patients. Thirty-three participants (32%) in the study were 65 or older. The results showed that those who completed therapeutic interventions, which included spiritual interventions, had a significant increase in QOL. Furthermore, researchers have found that delivery of medical care which includes a spiritual component can increase a patient's SQOL and enhance spiritual well-being (Buck et al., 2009; Kandasamy et al., 2011; Krizingaet et al., 2013;

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Lapid et al., 2007; Moadel et al., 2007; Piderman et al., 2014; Winkelman et al., 2011). The literature shows that the provider has an opportunity to impact the patient's SQOL through therapy and interventions (Buck et al., 2009; Kruzinga et al., 2013). Because increasing SQOL through interventions may help a patient's well-being, an increase in mental and physical QOL may be reflected in outcomes as well. One example of this is the study by Mohammadi, Tajvidi and Ghazizadeh (2014). Mohammaadi and colleagues (2014) studied the relationships among spiritual well-being, quality of life and mental health in 96 thalassemia major patients. The results revealed a positive statistically significant correlation between spiritual well-being and quality of life ($r= 0.347$ $p= 0.001$) and a statistically significant negative correlation with the score of mental health ($r = -0.525$ $p < 0.001$). This would indicate that increasing the patient's spiritual well-being was associated with improved QOL and better mental health. The researchers recommended incorporation of spiritual dimension when providing holistic care to thalassemia patients (Mohammadi et al., (2014).

This study found that increased number of morbidities is significantly related to a higher overall SQOL. This finding is inconsistent with the literature. Buck et al., (2009) studied 403 geriatric cancer patients in a non-experimental and cross-sectional study. The results showed that as symptoms, severity, and distress increased, SQOL decreased. Additionally, as spiritual experiences increase SQOL increases (Buck, et al., 2009). Also, Leak, Hu & King (2008) studied correlations between demographic characteristics, symptom distress, spirituality, and quality of life (QOL) of a convenience sample of 30 African American breast cancer survivors. Positive statistically significant correlations were found between symptoms and QOL ($r = 0.62$, $p= .05$) and between spirituality and QOL ($r = 0.70$, $p=.05$). The researchers concluded that

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disease process symptoms and spirituality are associated with QOL and reducing co-morbid symptoms would increase QOL.

This inconsistency may result from the participants' homogeneous background on religious practice/beliefs and the Christian perception on suffering. Most of the participants (n=29, 90.6%) in this study described themselves as, at least moderately, a religious person, belonging to a religious community, or having spiritual beliefs and strong personal beliefs. The majority of the participants (n=21, 65.6%) identified themselves as Christians. Some of the patients even stated that this journey of having cancer has brought them closer to the Lord. In addition, In addition, this study took place in a relatively conservative, small Midwest Ohio town. According to a survey conducted by Huffington Post in 2012, greater than 55% of community congregations of the South and Midwest states of the United States were Christian. This similarity in religious background in the community may contribute to the participants' positive perception toward suffering. Furthermore, the Biblical view of illness and human suffering is closely related to the origin of sin and is a natural component of finite embodied human beings. Enduring adversity can be used to display the work of God in a person's life and to facilitate the development of Christian character and spiritual growth (King James Version). The story of Job from the Bible (KJV) provides an illustration of this belief. Job loses everything he owns and loves even though he is a good and selfless man. He begins to question God's will and even his own life. What is the point of being righteous if the wicked can prosper? However, God intervenes and shows Job His true power, and even gives Job back twice what he had before he lost everything. This story symbolizes that in times of hardship, humans question the will of God and their own faith. The process may be beneficial and bring people closer to the

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Lord. The eventual realization for most is that God is all-powerful and all-knowing, and He will reward those who do good unto Him.

Clinical Implications

Providers must become educated and more comfortable in their abilities to provide spiritual interventions. Patients have spiritual needs. Providers need to be able to incorporate spiritual care into their practice to meet such needs (Pike, 2011; Ross, 2006). The results of this study established the necessity to encouraging patients to connect with a spiritual community. Next steps include understanding what types of interventions will help SQOL in the geriatric cancer population and developing a wellness program to deliver on such needs.

Recommendations for Future Studies

Recommendations for future studies include: studies with larger sample size so that the data can be generalize across a broader population, qualitative studies to gain insight into geriatric cancer patients' experiences regarding SQOL, and an investigation into SQOL interventions for providers and how such interventions can improve patient outcomes. Also, distress in the geriatric cancer patient population due to decreased SQOL has shown to have a negative impact on this population (Buck et al., 2009; Ku et al. 2010). Additional research is needed in order to develop a full understanding of the scope of implications of SQOL for the goal of designing effective interventions to achieve ultimate health outcomes in the geriatric cancer population.

Conclusion

With the growth of the geriatric population, there will be further needs to understand SQOL and how it impacts health and wellness. Healthcare providers need to understand how

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SQOL can influence outcomes so that they can initiate interventions to help the geriatric cancer population with such needs.

Capstone Committee

- Chu-Yu Huang, PhD, RN
- Elizabeth Delaney, MS, CNS, FNP-BC, OCN, AHPCN

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Appendix A

The following few questions are concerned with **your personal beliefs**, and how these affect your quality of life. These questions refer to religion, spirituality and any other beliefs you may hold. Once again these questions refer to **the last two weeks.**

F24.1 Do your personal beliefs give meaning to your life?

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

F24.2 To what extent do you feel your life to be meaningful?

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

F24.3 To what extent do your personal beliefs give you the strength to face difficulties?

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

F24.4 To what extent do your personal beliefs help you to understand difficulties in life?

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

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Appendix A (continued)

The following questions ask about your **spiritual, religious or personal beliefs** and how these beliefs have affected your quality of life. These questions are designed to be applicable to people coming from many different cultures and holding a variety of spiritual, religious or personal beliefs. If you follow a particular religion, such as Judaism, Christianity, Islam or Buddhism, you will probably answer the following questions with your religious beliefs in mind. If you do not follow a particular religion, but still believe that something higher and more powerful exists beyond the physical and material world, you may answer the following questions from that perspective. For example, you might believe in a higher spiritual force or the healing power of Nature. Alternatively, you may have no belief in a higher, spiritual entity, but you may have strong personal beliefs or followings, such as beliefs in a scientific theory, a personal way of life, a particular philosophy or a moral and ethical code.

While some of these questions will use words such as spirituality please answer them in terms of your own personal belief system, whether it be religious, spiritual or personal.

The following questions ask how your beliefs have affected different aspects of your quality of life in the past two weeks. For example, one question asks "To what extent do you feel connected with your mind body and soul?" If you have experienced this very much, circle the number next to "very much". If you have not experienced this at all, circle the number next to "Not at all". You should circle one of the numbers in between if you wish to indicate your answer lies somewhere between "Not at all" and "very much". Questions refer to the **last two weeks**.

SP1.1 **To what extent does any connection to a spiritual being help you to get through hard times?**

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

SP1.2 **To what extent does any connection to a spiritual being help you to tolerate stress?**

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

SP1.3 **To what extent does any connection to a spiritual being help you to understand others?**

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

SP1.4 **To what extent does any connection to a spiritual being provide you with comfort / reassurance?**

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

SP2.1 **To what extent do you find meaning in life?**

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

SP2.2 **To what extent does taking care of other people provide meaning of life for you?**

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Appendix A (continued)

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

SP2.3 To what extent do you feel your life has a purpose?

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

SP2.4 To what extent do you feel you are here for a reason?

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

SP5.1 To what extent do you feel inner spiritual strength?

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

SP5.2 To what extent can you find spiritual strength in difficult times?

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

SP8.1 To what extent does faith contribute to your well-being?

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

SP8.2 To what extent does faith give you comfort in daily life?

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

SP8.3 To what extent does faith give you strength in daily life?

Not at all	A little	A moderate amount	Very much	An extreme amount
1	2	3	4	5

SP3.2 To what extent do you feel spiritually touched by beauty?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

SP3.3 To what extent do you have feelings of inspiration/excitement in your life?

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Appendix A (continued)

Not at all 1	Slightly 2	Moderately 3	Very 4	Extremely 5

SP3.4 To what extent are you grateful for the things in nature that you can enjoy?

Not at all 1	Slightly 2	Moderately 3	Very 4	Extremely 5

SP7.1 How hopeful do you feel?

Not at all 1	Slightly 2	Moderately 3	Very 4	Extremely 5

SP7.2 To what extent are you hopeful about your life?

Not at all 1	Slightly 2	Moderately 3	Very 4	Extremely 5

SP3.1 To what extent are you able to experience awe from your surroundings? (e.g. nature, art, music)

Not at all 1	A little 2	Moderately 3	Mostly 4	Completely 5

SP4.1 To what extent do you feel any connection between your mind, body and soul?

Not at all 1	A little 2	Moderately 3	Mostly 4	Completely 5

SP4.3 To what extent do you feel the way you live is consistent with what you feel and think?

Not at all 1	A little 2	Moderately 3	Mostly 4	Completely 5

SP4.4 How much do your beliefs help you to create coherence between what you do, think and feel?

Not at all 1	A little 2	Moderately 3	Mostly 4	Completely 5

SP5.3 How much does spiritual strength help you to live better?

Not at all 1	A little 2	Moderately 3	Mostly 4	Completely 5

SP5.4 To what extent does your spiritual strength help you to feel happy in life?

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Appendix A (continued)

Not at all	A little	Moderately	Mostly	Completely
1	2	3	4	5

SP6 1 To what extent do you feel peaceful within yourself?

Not at all	A little	Moderately	Mostly	Completely
1	2	3	4	5

SP6 2 To what extent do you have inner peace?

Not at all	A little	Moderately	Mostly	Completely
1	2	3	4	5

SP6 3 How much are you able to feel peaceful when you need to?

Not at all	A little	Moderately	Mostly	Completely
1	2	3	4	5

SP6 4 To what extent do you feel a sense of harmony in your life?

Not at all	A little	Moderately	Mostly	Completely
1	2	3	4	5

SP7 3 To what extent does being optimistic improve your quality of life?

Not at all	A little	Moderately	Mostly	Completely
1	2	3	4	5

SP7 4 How able are you to remain optimistic in times of uncertainty?

Not at all	A little	Moderately	Mostly	Completely
1	2	3	4	5

SP8 4 To what extent does faith help you to enjoy life?

Not at all	A little	Moderately	Mostly	Completely
1	2	3	4	5

SP4 2 How satisfied are you that you have a balance between mind, body and soul?

Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
1	2	3	4	5

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Appendix A (continued)

ABOUT YOU

What is your gender?

Male
Female

What is your date of birth?

____ / ____ / ____
DAY / MONTH / YEAR

What is highest education you received?

Primary school
Secondary school
University
Post graduate

What is your marital status?

Single
Married
Living as married
Separated
Divorced
Widowed

How is your health? (G1.5)**

Very poor 1	Poor 2	Neither poor nor good 3	Good 4	Very good 5

Are you currently ill?

If yes, what is your diagnosis? ________________________________

What health problems do you have at the moment? (TICK NEXT TO THOSE THAT APPLY TO YOU)

Heart trouble
High blood pressure
Arthritis or Rheumatism
Cancer
Emphysema or chronic bronchitis
Diabetes
A cataract
Stroke
Broken or fractured bones
Chronic nervous or emotional problems
Chronic foot trouble (bunions, ingrown toenails)
Rectal growth or rectal bleeding
Parkinson's disease
Other (please describe)

** The question was originally in the body of [illegible] questionnaire in the pilot questionnaire

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Appendix A (continued)

To what extent do you consider yourself to be a religious person?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

To what extent do you consider yourself to be part of a religious community?

Not at all	A little	Moderately	Mostly	Completely
1	2	3	4	5

If so, which religious community are you a part of? ______________________

To what extent do you have spiritual beliefs?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

To what extent do you have strong personal beliefs?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

Do you have any comments about the questionnaire?

____

____

____

____

____

____

____

____

____

____

____

____

THANK YOU FOR YOUR HELP

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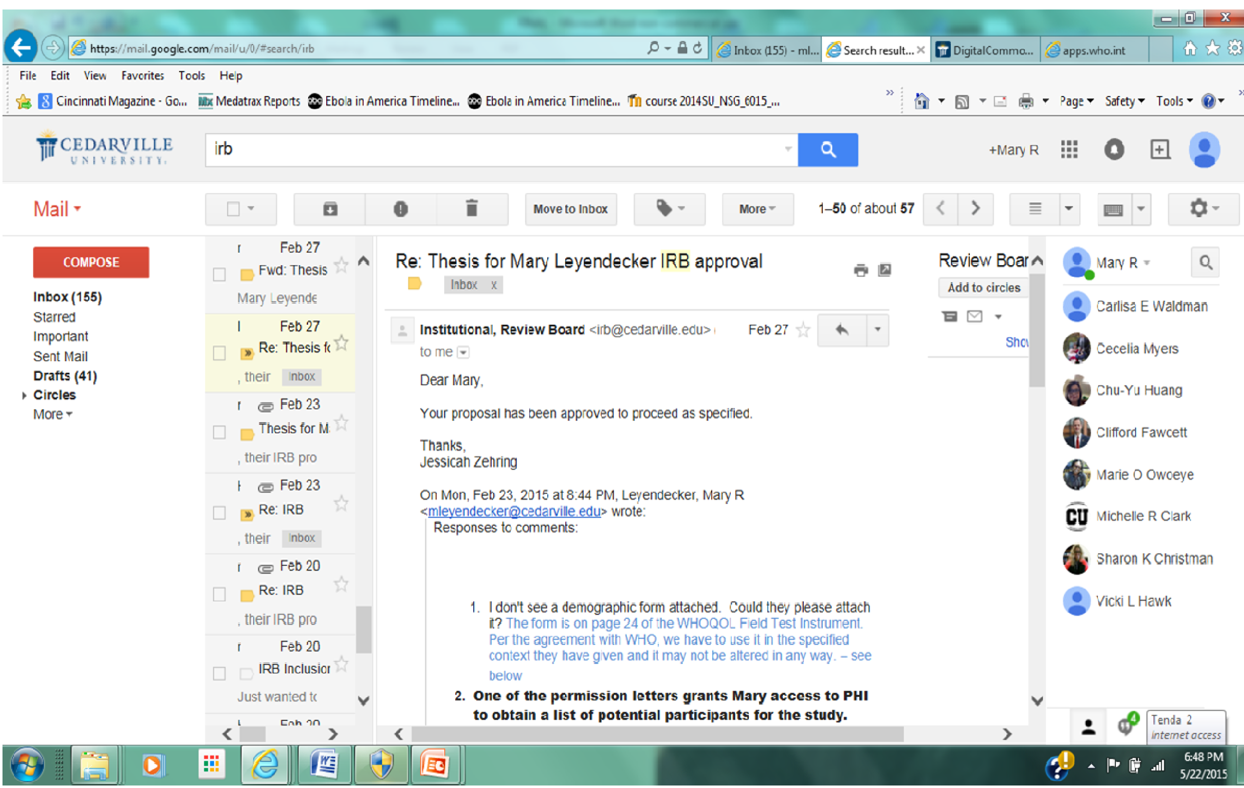
Appendix B



Re: Thesis for Mary Leyendecker IRB approval

Institutional, Review Board <irb@cedarville.edu> Feb 27
to me

Dear Mary,

Your proposal has been approved to proceed as specified.

Thanks,
Jessicah Zehring

On Mon, Feb 23, 2015 at 8:44 PM, Leyendecker, Mary R <mleyendecker@cedarville.edu> wrote:

Responses to comments:

1. I don't see a demographic form attached. Could they please attach it? The form is on page 24 of the WHOQOL Field Test Instrument. Per the agreement with WHO, we have to use it in the specified context they have given and it may not be altered in any way. – see below
2. **One of the permission letters grants Mary access to PHI to obtain a list of potential participants for the study.**

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Appendix C

Dayton Physicians *Network*

Hematology • Medical & Radiation Oncology • Urology

Hematology & Oncology
Charles Bane, MD
Howard Gross, MD, FACP
John Haluschak, MD
Shamim Jilani, MD, FACP
Satheesh Kathula, MD, FACP
Jharna Kodali, MD
Rajeev Kulkarni, MD
Albert Malcolm, MD
Mark Marinella, MD, FACP, CNSP
Mohsen Nuthakki, MD
Mridula Reddy, MD
Mark D. Romer, MD
Tarek Sabagh, MD, FACP
James Sablem, MD
Ketan Shah, MD
Manish Sheth, MD
Nandagopal Vrindavanam, MD
Burhan Yanes, MD
Mary Allen, MS RN, ACNP-BC
Elizabeth Delaney, RN, OCN, AOHPN
Tracey Hardin, MS, RN, ACNP-BC
Carol Nickel, MS, CNP
Renee Roth, MS, RN, ACNP-BC

Urology & Robotics
Ahmad Abouhossein, MD, FACS
Howard Abramowitz, MD, FACS
David Key, MD, FACS
Lawrence Litscher, MD, FACS
Daniel Miller, MD, FACS
Mark Monsour, MD
Jack Pence, MD, FACS
R. Scott Russell, MD, FACS
Erik Weise, MD
Michael Yu, MD, FACS
Donald Bogard, BSN, PA-C
Joni Reser, CNP

Radiation Oncology
Praveena Cheruvu, MD
Douglas Ditzel, DO
E. Ronald Hale, MD, MPH
Rebecca Paessun MD
Gregory Rasp, MD
Ronald Setzkorn, MD
Ryan Steinmetz, MD
Melissa Meyer, MS, CNS, APN

November 19, 2014

To: Cedarville University IRB

Dayton Physicians Network have agreed to allow Julia Mueller and Mary Leyendecker, nurse practitioner students at Cedarville University, to access patients and chart data through their network in order to complete research projects exploring the spirituality of patients.

Sincerely,

Dr. Charles Bane
Medical Director
Dayton Physicians Network

Robert Baird
CEO
Dayton Physicians Network

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Appendix C (continued)

Hematology • Medical & Radiation Oncology • Urology

December 9, 2014

Sharon K. Christman PhD, RN
Professor and Director of Research
251 N. Main St
School of Nursing
Cedarville University
Cedarville, OH 45314

Dear Dr. Christman:

We agree to collaborate with students and faculty from the Cedarville University Schools of Nursing and Pharmacy on research projects approved by the Cedarville University Institution Review Board (IRB). Students and faculty may collect and analyze data through any of the Dayton Physicians Network locations in accordance with HIPAA and IRB regulations.

Before any data is collected or analyzed, Elizabeth Delaney, a DPN employed nurse practitioner must be identified as a co-investigator. Elizabeth Delaney will communicate with DPN leaders regarding the purpose of the study, a timeline for data collection and status of IRB approval. The process for DPN communication about each project will be as follows:

1. Dr. Sharon Christman will discuss the research with Professor Delaney at Cedarville University.
2. Cedarville IRB approval will be sought and granted.
3. Professor Delaney will be notified of the IRB approval and an electronic abstract will be provided.
4. Professor Delaney will forward the abstract regarding the study to DPN Leadership specifically, Medical Director (Dr. Charles Bane), Chief Executive Officer (Robert Baird) and Director of Oncology Services (Holly Card). DPN Leadership, with Professor Delaney, will then notify further staff if necessary. For example, staff in location where study is being conducted.
5. A short letter will be generated by Dr. Christman identifying the student and the name of the project. The letter will be signed by the three DPN leaders as a way to assure that they are aware of the information in the study abstract.
6. Once the letter is signed, it shall be returned to Dr. Christman.
7. After Dr. Christman receives the letter the study can begin at DPN.
8. At the study's conclusion, a copy of the results will be provided to DPN Leadership.

Dayton Physicians Network reserves the right to deny access to DPN patients and data to CU researchers for any reason.

Sincerely,

Dr. Charles Bane
Medical Director
Dayton Physicians Network

Robert Baird
CEO
Dayton Physicians Network

Hematology & Oncology
Charles Bane, MD
Howard Gross, MD, FACP
John Haluschak, MD
Shamim Jilani, MD, FACP
Satheesh Kathula, MD, FACP
Jhansi Koduri, MD
Rajeev Kulkarni, MD
Albert Malcolm, MD
Mark Marinella, MD, FACP, CNSP
Mohan Nuthakki, MD
Mridula Reddy, MD
Mark D. Romer, MD
Tarek Sabagh, MD, FACP
James Sablers, MD
Ketan Shah, MD
Manish Sheth, MD
Nandagopal Vrindavanam, MD
Burhan Yanes, MD
Mary Allen, MS RN, ACNP-BC
Elizabeth Delaney, RN, OCN, ACHPN
Tracey Hardin, MS, RN, ACNP-BC
Carol Nikolai, MS, CNP
Renee Roth, MS, RN, ACNP-BC

Urology & Robotics
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Mark Monsour, MD
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Rebecca Paessun MD
Gregory Rasp, MD
Ronald Setzkorn, MD
Ryan Steinmetz, MD
Melissa Meyer, MS, CNS, APN

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Appendix D

Confirmation to use WHOQOL tool

RE: FW: WHOQOL-SRPB.

VAN OMMEREN, Mark Humphrey <vanommerenm@who.int> Inbox x

You can go ahead and use what is on the web

From: Leyendecker, Mary R [mailto:mleyendecker@cedarville.edu]
Sent: 14 November 2014 17:54
To: VAN OMMEREN, Mark Humphrey
Subject: Re: FW: WHOQOL-SRPB.

Van Ommeren,

Do you know how long it takes to receive the tool once you have a confirmation number or do I just use the SRPB on the website since it is already posted?

Thanks,

Mary Leyendecker MSN

On Fri, Nov 14, 2014 at 10:10 AM, VAN OMMEREN, Mark Humphrey <vanommerenm@who.int> wrote:

Re Q1: Yes

Re Q2: we do not have her contact info. You will need to use google

From: VOLKAN, Sibel
Sent: 14 November 2014 15:36
To: VAN OMMEREN, Mark Humphrey
Subject: FW: WHOQOL-SRPB.

Hello Mark,
This message is for you.
Thanks.
Sibel

Mrs Sibel Volkan
Health Statistics and Information Systems (HSI)
The World Health Organization
20 Avenue Appia
CH-1211 Geneva 27
Switzerland
Tel: +41 22 791 2334

From: Leyendecker, Mary R [mailto:mleyendecker@cedarville.edu]
Sent: 14 November 2014 13:52
To: whoqol

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Cc: Chu-Yu Huang
Subject: WHOQOL-SRPB.
Hello,

Confirmation to use WHOQOL tool (continued)

My name is Mary Leyendecker and I am a student from Cedarville University. I am working on my thesis paper and would like to utilize the WHOQOL-SRPB tool. I currently have a confirmation number from the website from which I email a "User Agreement". I have a few questions and have attempted to call and email for direction, however have not been able to reach anyone.

The purpose of my research is to describe the patient's SQOL in geriatric cancer patients.
My questions are as follows:
1) Can we use the 32 question SRPB without the 100 WHOQOL questions?or
2) May I have the contact information for Dr. Skevington so that I can understand if I can repeat her study on a smaller scale here in the United States at the Dayton Cancer Center?

I truly appreciate your time and look forward to hearing from you.
Mary Leyendecker, MSN
Cedarville University

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Appendix E

CONSENT FORM FOR EXPERIMENTAL STUDY

TITLE: **Spiritual Quality of Life among geriatric cancer patients: a descriptive correlational study**

I ________________________________ agree to take part in a research study titled "Spiritual Quality of Life among geriatric cancer patients: a descriptive correlational study," which is being conducted by Mary R. Leyendecker (MSN), Cedarville University School of Nursing, who can be contacted at 513-317-3115). This study will be conducted under the direction of Chu-Yu Huang (PhD), Cedarville University School of Nursing who can be reached at 937-766-7726. My participation is voluntary; I can refuse to participate or stop taking part at any time without giving any reason, and without penalty. I can ask to have information related to me returned to me, removed from the research records, or destroyed.

REASON/PURPOSE:

The purpose of this research is to describe the spiritual quality of life in geriatric cancer patients.

Spiritual Quality Of Life is an important factor in delivery of optimal healthcare outcomes. In order to develop interventions to help people who are trying to cope with illnesses, providers need to understand whether there is an issue so that they can begin to develop plans to help people. APN's who understand the relationship between Spiritual Quality Of Life and the physical and psychological symptoms a person with geriatric cancer is presenting with, can more adequately provide spiritual care in the clinical setting resulting in improved outcomes. The focus of this study is to gather information to help providers define whether there is a problem is and, if so, how it correlates to a geriatric cancer patient's belief system.

BENEFITS:

I will not benefit directly from this research.

COMPENSATION/COSTS/REIMBURSEMENT:

The questionnaire will be collected and a $5.00 Kroger gift card will be distributed to all subjects to show appreciation for their time. The funding will be collected from private sources. There will be no proration of payment. If a subject gets fatigued or changes their mind regarding participation, they will still be awarded the $5.00 gift card.

PROCEDURES:

If I volunteer to take part in this study, I will be asked to do the following things:

My part in the study will last end after this interview today, which should take about 15 minutes. I will sign this informed consent stating that participation is voluntary and I am free to withdraw from the study at any time. In addition, my decision to participate or not

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will not affect the treatment that I receive. If I qualify, I will be asked to complete a demographics sheet and the WHOQOL-SRPB Skevington (2011) questionnaire which is 36 questions regarding spiritual quality of life. This will NOT be audio or video recorded in any way.

DISCOMFORTS OR STRESSES:
No discomforts or stresses are expected.

RISKS:
No risks are expected.

DECEPTION: (Use only if applicable)
If deception is necessary, state: "In order to make this study a valid one, some information about my (or my child's) participation will be withheld until after the study."

CONFIDENTIAL, ANONYMOUS, OR PUBLIC:
Confidentiality will be provided for all personal identification per the current HIPAA law.

The information in this study will be utilized for research purposes only and will not be individually distributed. The data will be gathered as a data set and shared in as a research paper and presentation thesis at Cedarville University.

There will be no recordings of the information. I do have a right to review all of the answers prior to the study researcher collecting it. The data will be collected and held on the T: drive at Cedarville University under the Cedarville University guidelines for retention limits.

Confidentiality of records that identify the participant will be maintained. Maintaining confidentiality of information collected from research participants; meaning that only the investigator(s) or individuals of the research team can identify the responses of individual subjects. Addidional efforts will be made to make every effort to prevent anyone outside of the project from connecting individual subjects with their responses.

- Use of study codes on data documents (e.g., completed questionnaire) instead of recording identifying information and keep a separate document that links the study code to subjects' identifying information locked in a separate location and restrict access to this document (e.g., only allowing primary investigators access);
- There will be no face sheets containing identifiers (e.g., names and addresses) from survey instruments containing data after receiving from study participants;
- Any identifying information will be properly dispose, destroy, or delete study data / documents by December 31, 2015.
- Access to identifiable information
- Data documents will be securely stored within locked locations;

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Internet communications are insecure and there is a limit to the confidentiality that can be guaranteed due to the technology itself. However once the materials are received by the researcher, standard confidentiality procedures will be employed.

> The only people who will know that I am a research participant are members of the research team. No individually-identifiable information about me, or provided by me during the research, will be shared with others, except if necessary to protect my rights or welfare (i.e., if I am injured and need emergency care); or if required by law.
> Any information obtained in connection with this study that can be identified with me will remain confidential unless required by law.
> Any individually-identifiable information about me will be kept confidential. An exception to confidentiality involves information revealed concerning suicide, homicide, or child abuse which must be reported as required by law, or if the researchers are required to provide information by a judge.

FURTHER QUESTIONS:
The researcher will answer any further questions about the research, now or during the course of the project, and can be reached by telephone at: 513-317-3115.

FINAL AGREEMENT & CONSENT FORM COPY:

> I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

CONSENT FORM SIGNATURE LINES FORMAT:
Please sign both copies, keep one and return one to the researcher.

Name of Researcher:_______________________________________ Date:_______
Signature: ____
Telephone:__________________ Email:_____________________

Name of Participant:_______________________________________ Date:_______
Signature:____

IRB OVERSIGHT PARAGRAPH:

> Additional questions or problems regarding your rights as a research participant should be addressed to Dr. Dennis Sullivan, Chair, Institutional Review Board, Cedarville University, Cedarville, OH 45314; Telephone (937)766-7573. Email Address: IRB@cedarville.edu

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